

**Alteplase Infusion - STEMI Guidelines: Discard of Excess Medication Pre-Infusion**
**ALTEPLASE (tPA)**

- Dosage is determined by weight (see Table A for dosing table with volumes and rates)
- Maximum dose 100 mg. **Patient Weight \_\_\_\_\_kg** Actual  Estimated

**Preparation:**

Final concentration = Alteplase 1 mg/mL

Using diluent provided, reconstitute alteplase 100 mg according to manufacturer instructions.

Swirl vial gently to dissolve the powder – DO NOT SHAKE.

Determine alteplase dosing using Table A.

Withdraw 15 mg (15/mL) for direct IV bolus administration. Label and set medication aside. Administer this bolus immediately prior to first infusion.

Withdraw amount of discard according to Table A.

Attach tubing to Alteplase bottle and prime tubing being very careful not to waste medication in process.

**Please note: This protocol is a 3 step process: BOLUS dose, FIRST infusion dose and SECOND infusion dose**

<b>BOLUS Dose:</b>	Alteplase: 15 mg/15 mL direct IV push bolus over 2 min by Registered Nurse
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<b>FIRST Infusion Dose:</b>	Alteplase 0.75 mg/kg FIRST infusion _____mg (Max dose is 50 mg)
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<b>SECOND Infusion Dose:</b>	Alteplase 0.5 mg/kg SECOND infusion _____mg (Max dose 35 mg)
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**ADMINISTRATION:**
**Bolus dose :**

- Administer bolus of **15 mg (15 mL) by direct IV push over 2 mins.**  
RN Initials \_\_\_\_\_ / \_\_\_\_\_

**Infusion doses:**

**First infusion dose \_\_\_\_\_mg over 30 min** RN Initials \_\_\_\_\_ / \_\_\_\_\_

Program infusion pump by setting rate at \_\_\_\_\_mL/hr (amount of FIRST infusion dose over 30 min)

Set VTBI volume of FIRST infusion dose over 30 min

**Second infusion dose \_\_\_\_\_ mg over 60 min** RN Initials \_\_\_\_\_ / \_\_\_\_\_

Set rate at \_\_\_\_\_ mL/hr (amount of SECOND infusion dose over 60 min)

**Note:** For second infusion, **the VTBI** will be set according to Table A (this is to account for the amount of medication in tubing (17mL). When bottle is empty, replace with Normal Saline (50 mL) bag and continue to **run at same rate** until total VTBI is complete to ensure all medication is delivered.

**Do not change the rate** – the remainder of the alteplase in the line must be infused.

(Note: tubing volumes may vary by 1 or 2 mLs according to tubing used, however 17 mL has been chosen for consistency).

Monitor infusion carefully to avoid getting air in line.

**INDEPENDENT DOUBLE CHECK TO BE PERFORMED WHEN CALCULATING DOSES, MIXING DRUG & PROGRAMMING PUMP**

**Table A. Alteplase (Activase®) 1 mg/mL STEMI Dosage and Electronic Infusion Device Settings**

A	B	C	D	E	F	G
<b>Patient Weight (kg)</b>	<b>Bolus (mL)</b>	<b>Amount of discard (mL)</b>	<b>Infusion Series</b> Administered as: 1. 30 minute infusion (0.75 mg/kg) then 2. 60 minute infusion (0.5 mg/kg)	<b>Infusion Rate Setting (mL/hr)</b>	<b>Volume to be infused VTBI (mL)</b>	<b>Total Dose = Bolus + infusion (mL)</b>
41-42	15	33	1 <sup>st</sup> infusion: 31 mg (31 mL) IV over 30 min	62	31	67
			2 <sup>nd</sup> Infusion: 21 mg (21 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	21	4	
			<b>Part B:</b> NS 50 mL bag	21	17	
43-44	15	31	1 <sup>st</sup> infusion: 32 mg (32 mL) IV over 30 min	64	32	69
			2 <sup>nd</sup> Infusion: 22 mg (22 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	22	5	
			<b>Part B:</b> NS 50 mL bag	22	17	
45-47	15	28	1 <sup>st</sup> infusion: 34 mg (34 mL) IV over 30 min	68	34	72
			2 <sup>nd</sup> Infusion: 23 mg (23 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	23	6	
			<b>Part B:</b> NS 50 mL bag	23	17	
48-49	15	26	1 <sup>st</sup> infusion: 36 mg (36 mL) IV over 30 min	72	36	75
			2 <sup>nd</sup> infusion: 24 mg (24 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	24	7	
			<b>Part B:</b> NS 50 mL bag	24	17	
50-51	15	22	1 <sup>st</sup> infusion: 38 mg (38 mL) IV over 30 min	76	38	78
			2 <sup>nd</sup> infusion: 25 mg (25 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	25	8	
			<b>Part B:</b> NS 50 mL bag	25	17	

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52-54	15	20	1 <sup>st</sup> infusion: 39 mg (39 mL) IV over 30 min	78	39	80
			2 <sup>nd</sup> infusion: 26 mg (26 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	26	9	
			<b>Part B:</b> NS 50 mL bag	26	17	
55-56	15	17	1 <sup>st</sup> infusion: 41 mg (41 mL) IV over 30 min	82	41	83
			2 <sup>nd</sup> infusion: 27 mg (27 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	27	10	
			<b>Part B:</b> NS 50 mL bag	27	17	
57-58	15	14	1 <sup>st</sup> infusion: 43 mg (43 mL) IV over 30 min	86	43	86
			2 <sup>nd</sup> infusion: 28 mg (28 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	28	11	
			<b>Part B:</b> NS 50 mL bag	28	17	
59-60	15	12	1 <sup>st</sup> infusion: 44 mg (44 mL) IV over 30 min	88	44	88
			2 <sup>nd</sup> infusion: 29 mg (29 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	29	12	
			<b>Part B:</b> NS 50 mL bag	29	17	
61-63	15	9	1 <sup>st</sup> infusion: 46 mg (46 mL) IV over 30 min	92	46	91
			2 <sup>nd</sup> infusion: 30 mg (30 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	30	13	
			<b>Part B:</b> NS 50 mL bag	30	17	
64-65	15	5	1 <sup>st</sup> infusion: 48 mg (48 mL) IV over 30 min	96	48	95
			2 <sup>nd</sup> infusion: 32 mg (32 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	32	15	
			<b>Part B:</b> NS 50 mL bag	32	17	

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66-67	15	2	1 <sup>st</sup> infusion: 50 mg (50 mL) IV over 30 min	100	50	98
			2 <sup>nd</sup> infusion: 33 mg (33 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	33	16	
			<b>Part B: NS 50 mL bag</b>	33	17	
>67	15	0	1 <sup>st</sup> infusion: 50 mg (50 mL) IV over 30 min	100	50	100
			2 <sup>nd</sup> infusion: 35 mg (35 mL) IV over 60 min <b>Part A:</b> Change rate and VTBI and continue infusion; When VTBI complete, remove bottle and replace with NS 50 mL bag. Go to Part B.	35	18	
			<b>Part B: NS 50 mL bag</b>	35	17	

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